



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,749	12/02/2003	Akiko Hayashi	Q78631	2089
23373	7590	03/17/2005	EXAMINER	
SUGHRUE MION, PLLC			MCCLENDON, SANZA L	
2100 PENNSYLVANIA AVENUE, N.W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20037			1711	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/724,749

Applicant(s)

HAYASHI, AKIKO

Examiner

Sanza L McClendon

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 2 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/04 & 12/03.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. (US 2001/0029867 and EP 11 142 965).

Hayashi et al teaches UV curable ink compositions. Per example 1, therein is disclosed a composition comprising from 15.2-wt% of dipentaerythritol hexaacrylate, 73.2-wt% of phenol ethylene oxide modified acrylate, 3.5-wt% of a photoinitiator, 4-wt% of a pigment, 1.0-wt% of a dispersing agent, 0.1-wt% of a polymerization inhibitor, and 3.0-wt% of a viscosity regulator. This composition appears to anticipate the ink composition of claim 1 and therefore should inherently be printable from an ink-jet apparatus.

Art Unit: 1711

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 3-058955 (herein after '955, text taken from abstract).

'955 discloses UV curable printing inks. Said ink comprises a mixture of 40 parts polyester acrylate, 15 parts of a diacrylate ester, 13.5 parts of hexaacrylate compound, a pigment, a photoinitiator and a sensitizer, and a polymerization inhibitor. This appears to anticipate claim 1 and therefore should be inherently printable for an ink-jet apparatus.

4. Claims 1-2 is rejected under 35 U.S.C. 102(e) as being anticipated by Kondo (2003/0149130).

Kondo teaches ink compositions for ink jet recordings. Per examples 3-4 and 7 Kondo discloses ink compositions comprising 21.5 parts of a hexa-functional acrylate monomer with mono- and di-functional acrylate monomers, pigment dispersions and photoinitiators. These appear to anticipate applicants instantly claimed invention. Kondo teaches the viscosity of said compositions is between 30 to 300 mPa\*s—30 to 300 cps. The lower limit appears to anticipate the limitation "at most 50 cps" of claim 2, where the examiner is interpreting this to mean the upper limit of the viscosity is 50 cps and the lower limit is at least 1 cps.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al (US 2001/0029867 and EP 11 142 965).

Art Unit: 1711

Hayashi et al teaches UV curable ink compositions. Per example 1, therein is disclosed a composition comprising from 15.2-wt% of dipentaerythritol hexaacrylate, 73.2-wt% of phenol ethylene oxide modified acrylate, 3.5-wt% of a photoinitiator, 4-wt% of a pigment, 1.0-wt% of a dispersing agent, 0.1-wt% of a polymerization inhibitor, and 3.0-wt% of a viscosity regulator. This composition appears to read on the ink composition of claim 1. The examiner deems that it would have been obvious for an artisan of ordinary skill in the art to prepare the radiation curable ink of Hayashi et al having a viscosity of at most 50 cps because it is well known in the art of ink jettable compositions having a viscosity of at most 50 cps when used in industrial applications, as suggested by applicants Description of the Related Art section—see pages 2-3. The motivation would have been a reasonable expectation of obtaining an ink jet ink composition that sufficiently jettable from an ink jet head in the absence of evidence to the contrary and/or unexpected results.

### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 3/10/05  
Sanza L McClendon

Examiner